

ABSTRACT OF THE DISCLOSURE

A photovoltaic device comprising a plurality of spherical photovoltaic elements, a support and a first conductor layer and its production method are disclosed. Each of the photovoltaic elements comprises a spherical first semiconductor and a second semiconductor layer covering the surface thereof, the second semiconductor layer having an opening through which a part of the first semiconductor is exposed. An electrode is formed on each of the exposed part of the first semiconductor and the outer surface of the second semiconductor layer. The support has a plurality of recesses, each having a connection hole in its bottom, and comprises an electric insulator layer having the connection holes and a second conductor layer which is formed on the electric insulator layer except around the connection holes and which constitutes the inner surface of the recesses. The first conductor layer is disposed on the backside of the support. According to this production method, the photovoltaic element is disposed in each of the recesses of the support such that the opening of the second semiconductor layer and the exposed part of the first semiconductor are in contact with the electric insulator layer around the connection hole, and the contact parts are preferably bonded with an adhesive or melt-welded. Each electrode is electrically connected to the corresponding conductor layer, preferably with solder.